



**UNITED STATES DEPARTMENT OF COMMERCE  
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/343,686	11/21/94	KELLER	287526

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18M2/1226

EXAMINER

LINKFORD JR, L

ART UNIT

1808

PAPER NUMBER

12

DATE MAILED:

12/26/96

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

08/343,686

Applicant(s)

Keller et al

Examiner

L. Blaine Lankford

Group Art Unit

1808



☒ Responsive to communication(s) filed on May 6, 1996

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-106 is/are pending in the application.

Of the above, claim(s) 1-26 and 60-106 is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 27-59 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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### DETAILED ACTION

1. Applicant's election without traverse of group I in Paper No. 3 is acknowledged.

Claims 1-18 and 46-82 are considered on the merits.

2. Claims rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by .

Applicant claims a method for preparing mushroom mycelia.

Szuecs and Schindler both teach growing mushroom mycellia in a submerged complex nutrient culture with aeration and agitation. The culture is inoculated with mycellium and produces an edible product. The references anticipate the claim subject matter.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 3-18 and 46-83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schindler and Szuets in view of .

Schindler also teaches growing mushroom mycellia in a submerged complex nutrient culture with aeration and agitation. The culture is inoculated with mycellium and produces an edible product including 1-octen-3-ol (an important flavor/aroma component). The medium includes a variety of additive oils and fatty acids (col 3, lines 24-36), nutritive salts, etc.. Szuets also teaches growing mushroom mycellia in a submerged complex nutrient culture with aeration and agitation. The culture is inoculated with mycellium and produces an edible product. The culture includes lecithin, starch and other complex sugars , and natural proteins. These two references clearly teach the basic theory and techniques of mushroom mycelia growth, i.e. creation of a complex liquid nutritive medium, inoculation of the medium with mycelium, submerged fermentation in a vessel with controlled air flow and the production of edible mycelia and or flavor and aroma components. As the references clearly indicate that the various

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proportions and amounts of the ingredients used in the claimed composition as well as the culturing techniques are result effective variables, they would be routinely optimized by one of ordinary skill in the art in practicing the invention disclosed by that reference.

The references do not clearly teach using potatoes or extracts thereof in a mushroom mycelial medium, however the references do teach using complex media supplements such as corn liquor and also teach the desirability of adding nutritive supplements which would appear to be essentially what potatoes would add, e.g. starch hydrolysates. Furthermore, the art, Fuzisawa et al and Hiromoto, clearly teach that potato based or supplemented media are good for growing mushrooms therefore it would be obvious to add or substitute potatoes for the nutrients in Schinler and Szuca for a mushroom mycelia growth medium or method.

Accordingly, the claimed invention was prima facie obvious to one of ordinary skill in the art at the time the invention was made especially in the absence of evidence to the contrary.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to L. Blaine Lankford whose telephone number is (703) 308-2455.

LBL

December 23, 1996



BLAINE LANKFORD  
PATENT EXAMINER  
GROUP 1800